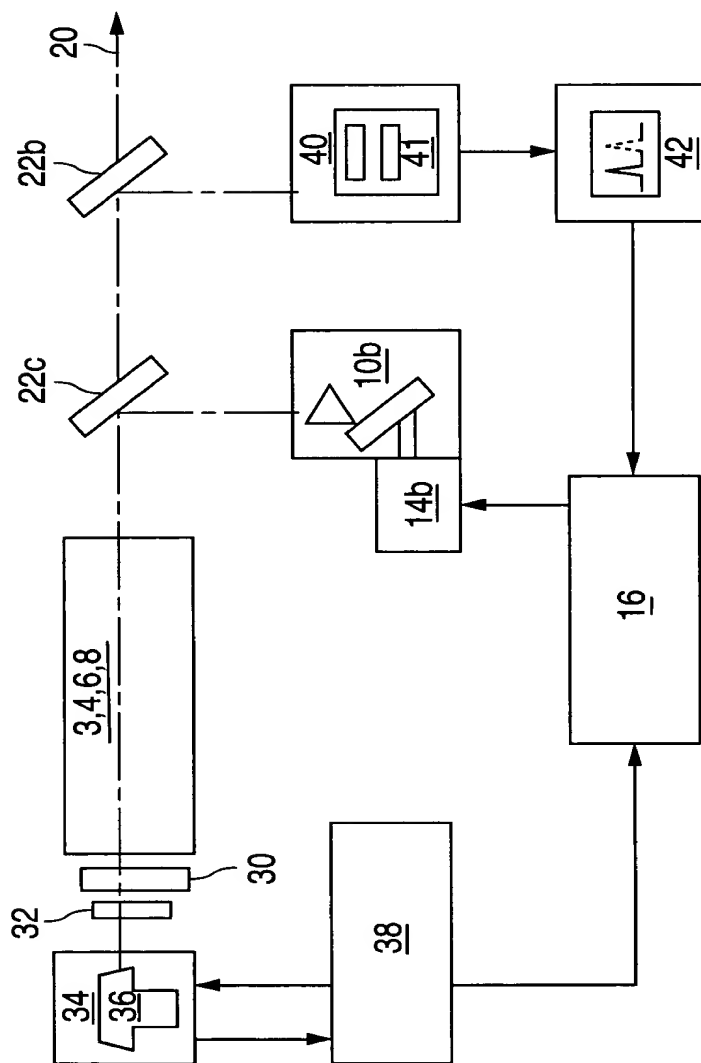


FIG. 1



Scheme of the laser system including the apparatus and processing for absolute wavelength calibration

- | | | | |
|------------|--|----------|----------------------------------|
| 3, 4, 6, 8 | laser chamber, pulser, gas handling, power supply | 20 | narrow-band output beam |
| 34 | wavelength calibration tool containing absorbing element | 30 | polarizer |
| 36 | signal processing and driving source for 2 gas cell | 36 | gaseous element |
| 38 | main processing and data recording | | |
| 106 | line narrowing and tuning block | 22b, 22c | beam splitters |
| | | 14b | motor drive for wavelength shift |
| | | 40 | wavelength monitoring |
| | | 42 | display for wavelength |
| | | 32 | resonator mirror |

FIG. 2

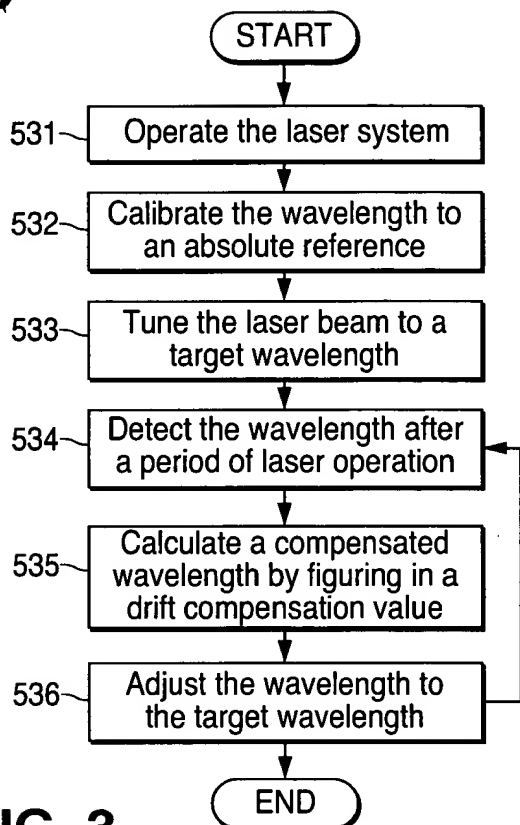


FIG. 3

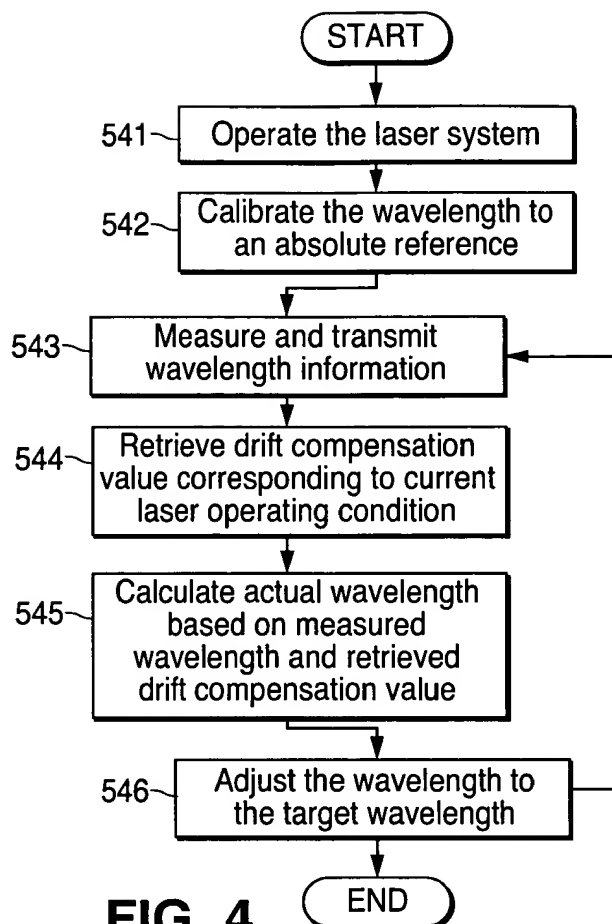


FIG. 4

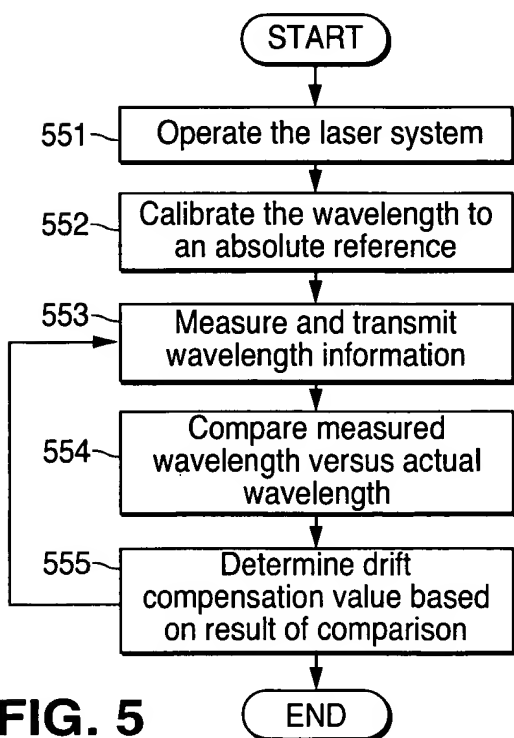


FIG. 5

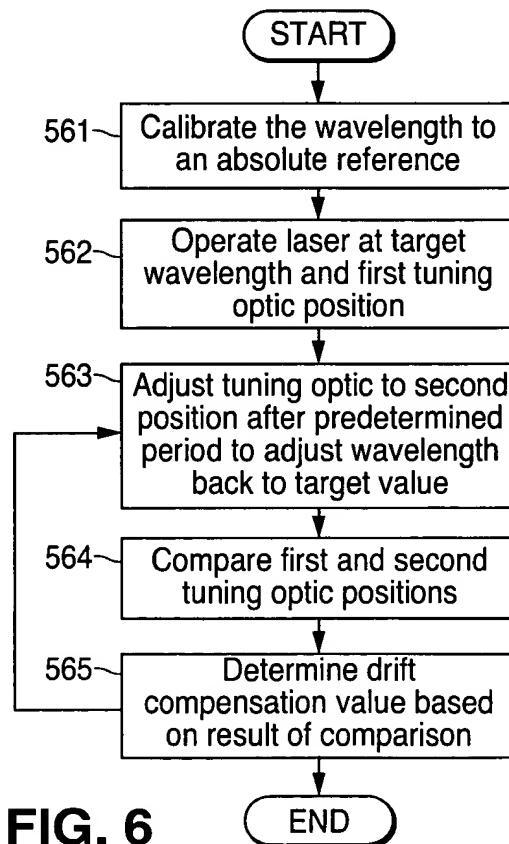


FIG. 6



Wavelength Drifts													
Pre	6464	6462	6459	6480	6461	6457	6458	6094	6102	6105	6104		
Start	-0.02	-0.01	-0.01	0.01	0	-0.01	-0.03	-0.05	0.05	-0.01	0.01		
Full1	0.03	-0.02	-0.11	-0.01	-0.05	-0.02	-0.09	-0.07	0	0.03	0		
Full2	0	-0.07	-0.06	-0.04	-0.1	-0.03	-0.12	-0.13	-0.01	-0.06	-0.9		
Full3	0.01	-0.02	0	0	-0.04	-0.02	-0.14	-0.13	-0.03	-0.01	-0.1		
Full4	0	-0.07	-0.05	-0.02	-0.1	-0.02	-0.18	-0.17	-0.05	0	-0.16		
Final	0.01	-0.06	0.03	-0.07	-0.16	0.09	-0.18	-0.13	-0.12	0	-0.17		
Post	-0.1	-0.01	0.01	-0.14	-0.2	0.08	-0.17	-0.22	-0.2	-0.07	-0.23		
	-0.04	0.05	0.07	-0.08	-0.25	0.12	-0.18	-0.21	-0.19	0.08	-0.23		
Diff:													
	-0.03	-0.05	0.03	-0.83	-0.05	-0.01	-0.03	-0.06	-0.01	-0.09	-0.09		
	0.01	-0.05	0.08	0.04	0.06	0.01	-0.02	0	-0.02	0.05	-0.01		
	-0.01	-0.05	-0.05	-0.02	-0.06	0	-0.04	-0.04	-0.02	0.02	-0.08		
	0.01	0.13	0.08	-0.06	-0.06	0.11	0.1	-0.04	-0.07	0	-0.01		
	-0.11	-0.07	-0.02	-0.07	-0.04	-0.01	-0.09	-0.09	-0.08	-0.07	-0.06		
Diff GLD:													
	-0.13	0.01	0.12	-0.13	-0.15	0.1	-0.08	-0.15	-0.2	-0.1	-0.23		
Good tendency													
				x	x			x	x		x		

FIG. 7